Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A microcavity-forming system for making microcavities in a wire comprising:

a coating station receiving the wire from a source of the wire and applying a polymer coating to the wire, the polymer coating having an outer surface encircling the wire;

a mask-forming station receiving the polymer-coated wire from the coating station and blowing moist air over the polymer-coated wire to form air bubbles which result in holes substantially evenly distributed over the outer surface of ~~in~~ the polymer coating, thereby creating a mask;

an etching station receiving the wire, as coated with the polymer mask, from the mask-forming station and etching the wire through the holes in the polymer mask to form microcavities in the wire; and

a stripping station receiving the wire from the etching station and removing the polymer mask from the wire, leaving the wire with microcavities.

2. (Original) The system of claim 1 wherein the wire is tungsten.

3. (Original) The system of claim 2 wherein the coating station comprises a tank housing a solution of the polymer in a fast-evaporating solvent.

4. (Original) The system of claim 3 wherein the solution comprises 0.1 to 10 percent by weight of polymer.

5. (Original) The system of claim 3 wherein the polymer is polystyrene and the solvent is selected from the group consisting of benzene, toluene, and carbon disulfide.

6. (Original) The system of claim 5 wherein the solvent is carbon disulfide.

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7. (Original) The system of claim 2 wherein the mask-forming station comprises a chamber defining a controlled atmosphere through which the wire travels.

8. (Original) The system of claim 7 wherein the atmosphere has a humidity of at least 30 percent.

9. (Original) The system of claim 2 wherein the etching station comprises a container retaining an etching bath.

10. (Original) The system of claim 9 wherein the etching bath is hydrogen peroxide.

11. (Original) The system of claim 2 wherein the stripping station comprises an enclosure containing a solvent bath.

12-37. (Canceled)

38. (Newly Added) The system of claim 1 wherein the mask-forming station includes:

a chamber to create a controlled atmosphere around the polymer-coated wire;

a blower to blow moist air over the polymer-coated wire; and

rotating means to rotate the polymer-coated wire as it is drawn through the chamber.

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